CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 80-8

NPDES PERMIT NO. CA0037770

WASTE DISCHARGE REQUIREMENTS FOR:

MOUNTAIN VIEW SANITARY DISTRICT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Board) finds that:

1. Mt. View Sanitary District, hereinafter called the discharger, submitted an NPDES Permit Application dated December 15, 1977. The Board reissued the permit October 16, 1979 and stated therein its intent to amend the permit soon.

2. The discharger operates a secondary biofiltration treatment plant with a design capacity of 1.6 mgd serving portions of Contra Costa County in the vicinity of Martinez.

3. Waste 001, consisting of an average of about 0.7 mgd of domestic sewage, is discharged to 20 acres of managed marsh ponds constructed by the discharger. Effluent from these ponds is discharged to Peyton Slough, a tributary of Suisun Bay.

4. Waste 002 is digested sludge which is placed in a drying bed designated as site "L-1."

5. In April 1975, the Board adopted the Water Quality Control Plan for San Francisco Bay Basin (Basin Plan).

6. The beneficial uses of Suisun Bay and contiguous waters, as identified in the Basin Plan, are:

   a. Recreation (contact and non-contact).
   b. Fish migration and spawning.
   c. Habitat for wildlife and estuarine organisms including some rare and endangered species.
   d. Industrial service and process water supply.
   e. Esthetic enjoyment.
   f. Navigation.
   g. Commercial and sport fishing.

7. Discharge to Peyton Slough is contrary to two of the Board's Basin Plan prohibitions: (1) prohibition against discharge where wastewater receives less than 10:1 initial dilution, and (2) prohibition against discharge into nontidal water or dead-end sloughs or similar confined water areas. The Basin Plan provides for exceptions to these prohibitions for environmentally beneficial projects and the Board has established policies for evaluating benefits of marsh creation and enhancement projects in its Resolution 77-1, "Policy

2119,1029

and Guidelines on the Use of Wastewater to Create, Restore, Maintain and/or Enhance Marshlands."

8. By letter dated May 11, 1979, the Executive Officer asked the discharger to provide additional information to support a determination as to whether or not the discharger's Marsh Enhancement Program conforms with the Board's Marsh Policy.

9. On June 27, 1978, the discharger submitted a request for a compliance time schedule extension pursuant to Section 301(i)(1) of the Clean Water Act.

10. This project involves the continued operation of a publicly-owned facility to provide sewerage service with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Administrative Code.

11. Effluent limitation, toxic effluent standards, established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

12. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

13. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder shall comply with the following:

A. Effluent Limitations

1. The discharge of Waste No. 001 in excess of the following limits is prohibited:

Constituents	Units	30-day Average	7-day Average	Daily Maximum
a. Settleable Matter	ml/l-hr	0.1	-	.2
b. BOD	lbs/day	400	-	1250
	kg/day	182	-	567
	mg/l	30	45	60

Constituents	Units	30-day Average	7-day Average	Daily Maximum
c. Suspended Solids	lbs/day	400	-	1250
	kg/day	182	-	567
	mg/l	30	45	60
d. Oil & Grease	lbs/day	133	-	417
	kg/day	60.5	-	189
	mg/l	10	-	20
e. Chlorine Residual	mg/l	-	-	0.0

2. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (85 percent removal).

3. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:[1/]

Constituent	Unit of Measurement	50% of Time	10% of Time
Arsenic	mg/l (kg/day)	0.01 (.0605)	0.02 (.189)
Cadmium	mg/l (kg/day)	.02 (.121)	.03 (.284)
Total Chromium	mg/l (kg/day)	.005 (.0303)	.01 (.0945)
Copper	mg/l (kg/day)	.2 (1.21)	.3 (2.84)
Lead	mg/l (kg/day)	.1 (.605)	.2 (1.89)
Mercury	mg/l (kg/day)	.001 (.00605)	.002 (.0189)
Nickel	mg/l (kg/day)	.1 (.605)	.2 (1.89)
Silver	mg/l (kg/day)	.02 (.121)	.04 (.378)
Zinc	mg/l (kg/day)	.3 (1.82)	.5 (4.73)
Cyanide	mg/l (kg/day)	.1 (.605)	.2 (1.89)
Phenolic Compounds	mg/l (kg/day)	.5 (3.03)	1.0 (9.45)
Total Identifiable Chlorinated Hydrocarbons[2/]	mg/l (kg/day)	.002 (.012)	.004 (.0378)

[1/] These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

[2/] Total Identifiable Chlorinated Hydrocarbons shall include the concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

4. The total coliform bacteria for a median of seven consecutive effluent samples shall not exceed 23 MPN per 100 milliliters. Any single sample shall not exceed a most probable number (MPN) of 1,000 total coliform bacteria.

5. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.

6. In any representative set of samples the waste as discharged shall meet the following limit of quality:

TOXICITY:

The survival of an acceptable test organism in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place.

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of turbidity or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Annual median - 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.2 pH units.
d.	Un-ionized ammonia	0.4 mg/l as N, Maximum

3. The discharge of waste shall not cause the annual median concentration of un-ionized NH_4OH (as N) to exceed 0.025 mg/l in the main body of the receiving water.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Land Disposal Requirements

1. The discharge of Waste No. 002 shall not cause waste material to be in any position where it is or can be carried from Land Disposal Site "L-1" and deposited in waters of the State.

2. Land Disposal Site "L-1" shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site.

D. Discharge Prohibitions

1. The average dry weather flow shall not exceed 1.6 mgd. Average shall be determined over three consecutive months each year.

2. The discharge of waste 001 at a location where it does not receive a minimum initial dilution of 10:1 is prohibited.

3. The discharge of waste 001 into Peyton slough is prohibited.

4. There shall be no bypass of untreated wastewater to waters of the State either at the plant or from the collection system.

E. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. Compliance with Effluent Limitation A.1.e (chlorine residual) shall be achieved by March 1, 1981.

3. Compliance with Receiving Water Limitation B.3 (un-ionized ammonia annual median) and Prohibitions D.2 (10:1 dilution) and D.3 (Peyton Slough discharge) shall be achieved according to the following schedule:

Task	Report Due
File report demonstrating conformance of discharger's Marsh Program with Board's Marsh Policy	October 1, 1980

4. During such time as facility operation includes marsh management and a discharge to Peyton Slough, treatment plant staff should include a full-time biologist trained in marsh or aquatic biology.

5. The discharger shall review and update annually its contingency plan as required by Regional Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

6. The Board's Orders 74-134, 77-96, 77-131, 78-47, 78-94 and those portions of 79-125 pertaining to Mountain View Sanitary District are hereby rescinded.

7. This Order includes all items of, except A-12, the attached "Standard Provisions, Reporting Requirements and Definitions," dated April 1977.

8. The discharger shall provide standby power facilities by March 1, 1981.

9. The discharger shall comply with the Self-Monitoring Program as directed by the Executive Officer.

10. This Order expires on November 1, 1984, and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than September 19, 1984 as application for issuance of new waste discharge requirements.

11. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from the date of hearing provided the Regional Administrator of the U. S. Environmental Protection Agency has no objection.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 19, 1980.

Attachments:
Standard Provisions, Reporting Requirements & Definitions - April 1977
Self-Monitoring Program

FRED H. DIERKER
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Mountain View Sanitary District

NPDES NO. CA 0037770

ORDER NO. 80-8

CONSISTS OF

PART A , January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

A. INFLUENT AND INTAKE

Station	Description
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge into the marsh ponds and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

Station	Description
C-R	At a point in Peyton slough, located within 200 feet upstream from the confluence of the elongated pond with Peyton Slough.
C-1	At a point in Peyton Slough, located within 10 feet from the point of discharge to Peyton Slough.
C-2	At a point in Peyton Slough, located 300 feet downstream from the confluence of the elongated pond with Peyton Slough.
C-3	At a point in Peyton Slough, located at the upstream headwall of the culvert under Interstate Highway 680.
C-4	At a point in Peyton Slough, located at the upstream headwall of the culvert under Waterfront Road.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

Station	Description
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations or collection system.

Note: Initial SMP report to include map and description of each known bypass or overflow location.

REPORTING - Shall be submitted monthly and include date, time and period of each overflow or bypass.

F. MARSH EFFLUENT STATIONS

M-A	In the discharge stream from marsh plot A to Peyton Slough.
M-B	In the discharge stream from marsh plot B to Peyton Slough.

II. MODIFICATIONS OF PART A

Exclusions: This SMP does not include the following paragraphs of Part A: C.3, C.4, C.5.c.

III. MISCELLANEOUS REPORTING

1. Annual report shall include nutrient and metals data for previous ten samples.

2. Chlorine and sulfur dioxide dosage rates shall be reported daily as lbs/day and as average mg/l.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 80-8.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

Date Ordered _____

TABLE I Mt View Sanitary District

SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001		E-001-D			C	P&L	O	M-A	M-B		
TYPE OF SAMPLE	C-24	C-24	G	C-24	G	Cont	G	G	O	G	G		
Flow Rate (mgd)	D												
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	2/W	2/W											
Chlorine Residual & Dosage (mg/l & kg/day)						(2) Cont							
Settleable Matter (ml/1-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)	2/W	2/W											
Oil & Grease (mg/l & kg/day)	W	W											
Coliform (Total) (MPN/100 ml) per req't					3/W					M	M		
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste				M (2)									
Ammonia Nitrogen (mg/l & kg/day)		M					M (1)			M	M		
Nitrate Nitrogen (mg/l & kg/day)		M					M (1)			M	M		
Nitrite Nitrogen (mg/l & kg/day)		M					M (1)			M	M		
Total Organic Nitrogen (mg/l & kg/day)		M					M (1)			M	M		
Total Phosphate (mg/l & kg/day)		M											
Turbidity (Jackson Turbidity Units)		2W					M (1)						
pH (units)			D				M (1)			M	M		
Dissolved Oxygen (mg/l and % Saturation)			D				M (1)						
Temperature (°C)			D				M (1)			M	M		
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)			W				M						
Arsenic (mg/l & kg/day)		3M											
Cadmium (mg/l & kg/day)		3M											
Chromium, Total (mg/l & kg/day)		3M											
Copper (mg/l & kg/day)		3M											
Cyanide (mg/l & kg/day)		3M											
Silver (mg/l & kg/day		3M											
Lead (mg/l & kg/day)		3M											

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
1111 JACKSON ST., ROOM 6040
OAKLAND, CALIFORNIA 94607
FACT SHEET
APPLICATION FOR WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGE TO STATE WATERS

File No. 2119.1029
NPDES No. CA0037770

The Mountain View Sanitary District of Contra Costa County has applied for waste discharge requirements to continue its discharge of pollutants into State waters.

The District now discharges an average of 0.7 mgd of treated sewage into managed marsh ponds constructed by the District. Secondary treatment is provided ahead of those ponds. Overflow (effluent) from the marsh flows, via Peyton Slough, to Suisun Bay at Bull's Head about 1.5 miles east of the Benicia-Martinez Bridge (see attached map).

The permit application and recent self-monitoring data report the average effluent characteristics as follows:

Parameters	Units	Data
Flow	mgd	0.7
BOD	mg/l	28.
TSS	mg/l	26.
Settleable Matter	ml/l	0.1
NH_3	mg/l	10.8
Cl_2 residual	mg/l	0.0
Coliform	MPN/100 ml	12
Toxicity	Percent Survival	$\geq$90
pH	Units	$\geq$6.5
		$\leq$8.5

The Board's staff has prepared a Tentative Order for the Board's consideration (copy attached). Its adoption would revise the NPDES permit for Mountain View Sanitary District. Effluent limitations in the Tentative Order are based upon the federal definition of secondary treatment and the Board's Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). Receiving water limitations and prohibitions are also based on the Basin Plan. Special provisions include the following:

1. Compliance with the effluent chlorine residual limitation is required by March 1, 1981.

2. Compliance with the un-ionized ammonia annual median receiving water limit is deferred pending Board decision on conformance of discharger's Marsh Enhancement Program with the Board's Marsh Policy. The discharger is required to submit a final report on the Marsh Program by October 1, 1980.

2119.1029

3. Compliance with the Basin Plan prohibitions against discharge to Peyton Slough and against discharge at locations where 10:1 dilution is not achieved is deferred pending Board's decision on the discharger's request for exceptions to the prohibitions. The Tentative Order requires submission by October 1, 1980 of a final report supporting the discharger's request by documenting conformance of the Marsh Enhancement Program with the Board's Marsh Policy.

After review of the discharger's submittals in October 1980, the Board will determine whether the Marsh Enhancement Program conforms with the Board's Marsh Policy, and whether exceptions to the discharge prohibitions are warranted. The point of compliance with the un-ionized ammonia annual median limit will also be determined then.

The proposed efluent limitations, specific information, rationale and other information are on file in Room 6040, 1111 Jackson Street, Oakland, California, and may be inspected between 8:00 a.m. and 5:00 p.m. Monday through Friday. Copies of the Tentative Order containing, recommended by the staff, limitations and provisions can be obtained by calling (415) 464-1255. Comments should be received by Februray 5, 1980.

The Board will consider the Tentative Order at a public hearing, tentatively scheduled for February 19, 1980. Further information can be obtained by calling R. K. McMurtry at 464-0616.

Attachments:
Map
Tentative Order

TABLE I (continued) [illegible]ew Sanitary District

SCHEDULE OR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001		E-001-D			C	P&L	O	M-H	H-B		
TYPE OF SAMPLE	C-24	C-24	O	C-24	G	Cont	G	G	O	G	G		
Mercury (mg/l & kg/day)		3M											
Nickel (mg/l & kg/day)		3M											
Zinc (mg/l & kg/day)		3M											
PHENOLIC COMPOUNDS (mg/l & kg/day)		3M											
All Applicable Standard Observations			D				M (1)	W	E				
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)		3M											
Un-ionized NH_4OH (3)		M					M (1)			M	M		

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
O = Overflows and bypasses

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 month
Cont = continuous

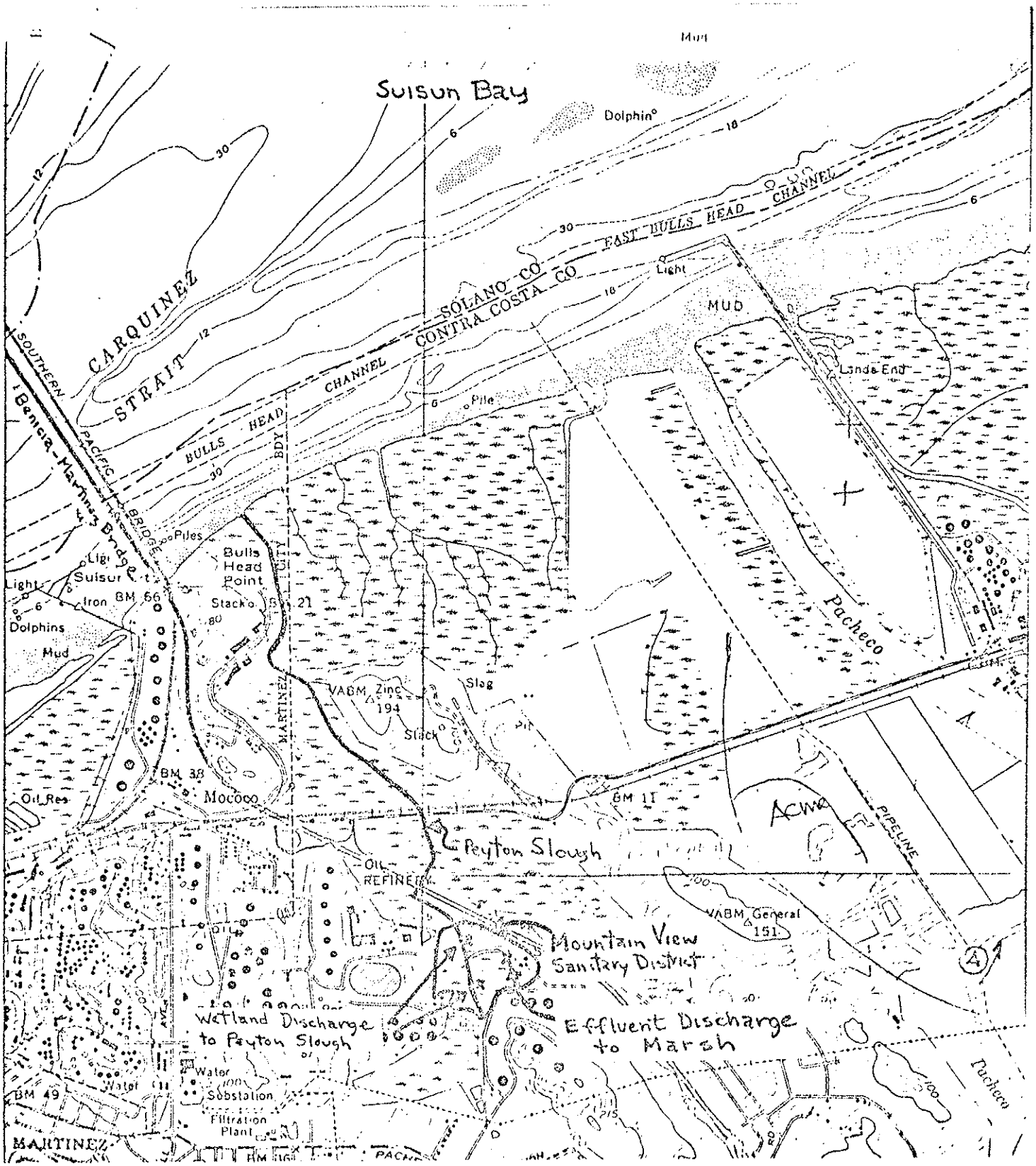
During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

- Composite sample for BOD, Total Suspended Solids, Oil and Grease (influent and effluent).
- Grab sample for Coliform (Total and Fecal), Settleable Matter, and Chlorine Residual. (continuous or every two hours)
- Continuous monitoring of flow.

FOOTNOTES

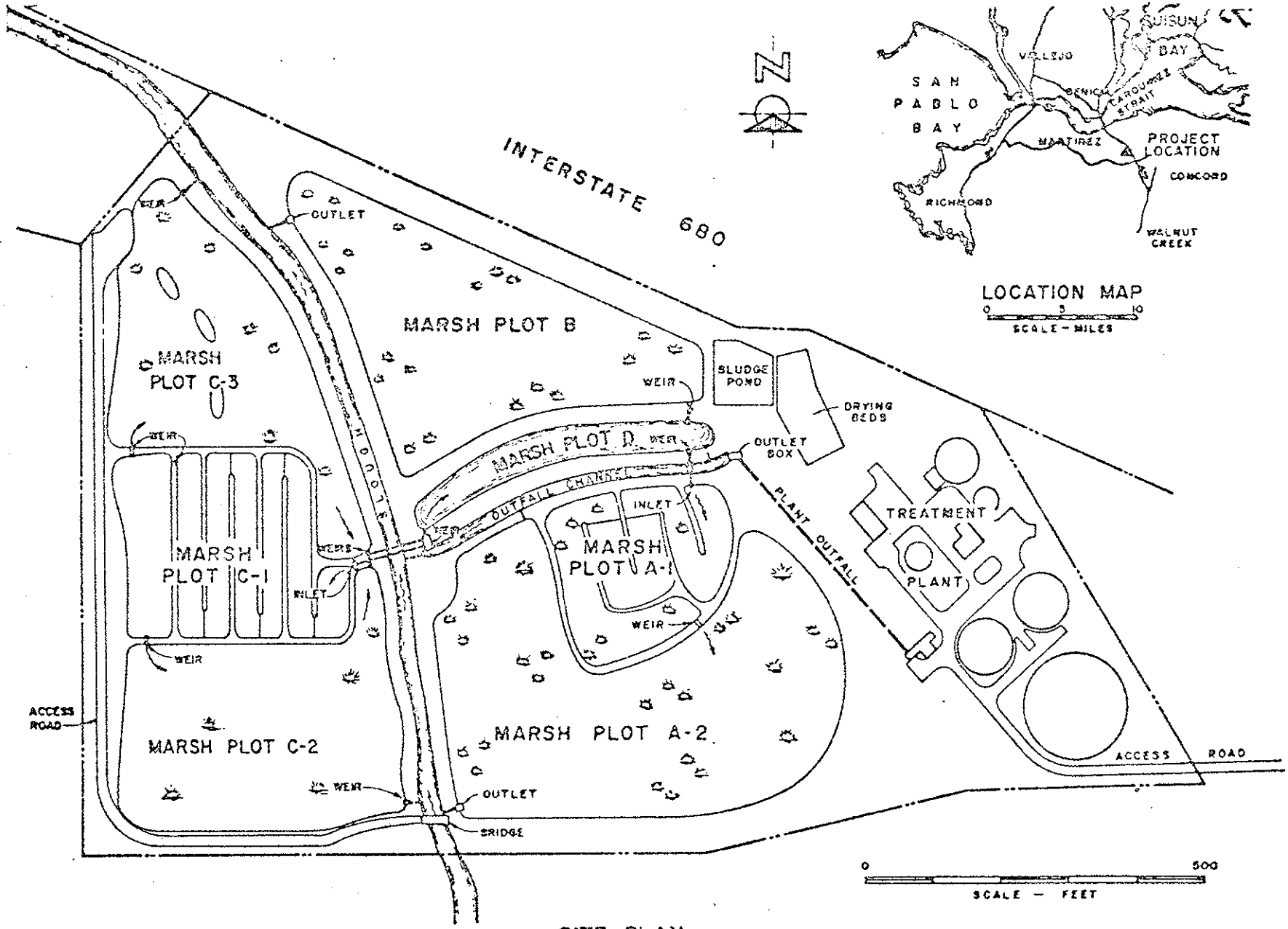
(1) At Stations C-R, C-3 and C-4 only. This monitoring will be reduced or eliminated following accumulation of 10 months data.

(2) Prior to completion of de-chlorination facilities, chlorine residual and toxicity shall be measured where the marsh outfalls discharge into Peyton Slough. Subsequently, they shall be measured following de-chlorination, before discharge into the marsh.



DISCHARGE LOCATION

MOUNTAIN VIEW SANITARY DISTRICT



SITE PLAN

MT. VIEW SANITARY DISTRICT
MARSH ENHANCEMENT PROGRAM

Figure 2